Message

From: Norman Bernstein [nwbernstein@nwbllc.com]
Sent: 3/24/2020 7:33:29 PM
To: Ohl, Matthew [ohl.matthew@epa.gov]
CC: Peter Racher [pracher@psrb.com]; Krueger, Thomas [krueger.thomas@epa.gov]; Douglas Petroff [DPetroff@idem.in.gov]
Subject: Re: Third Site - DNAPL Area Treatment

Flag: Follow up

Dear Messrs Ohl and Krueger

This responds to your email to us of March 23, 2020.

We do not disagree that more work needs to be done to bring the DNAPL area at Third Site into compliance with cleanup objectives. But we were surprised and disappointed to receive your email of yesterday.
We called to the Agency's attention in February our differences with our contractor McMillan McGee (MM) as to the causes of the problem and on February 12, 2020 a comprehensive sampling plan was submitted to EPA by Geosyntec on behalf of the Trust to determine where the residual contamination is in that area. The purpose was to use the sampling information to determine the failure mechanism and to provide the information needed to consider alternatives to remedy the remaining contamination. MM filed objections and submitted its own proposed sampling plan on February 21. Geosyntec responded to those comments.
On March 3, EPA wrote

> We're preparing a response to the sampling plans/responses to comments. Do you anticipate issuing more responses to comments or counter-proposal within the next week?

MM responded by email the same day saying "if you really want to find out what is happening at the site then you need to sample the groundwater below 40-feet BGS." Geosyntec disagreed with that and noted in a February 27 response that it was already collecting soil samples down to 46' BGS and would also sample the pore water that came with those samples. Nevertheless, to get that issue behind us, on March 13, 2020 Geosyntec submitted to EPA an Addendum to the sampling plan that provided for groundwater sampling.
The ERH system operated from Sept. 2018 to January 2019 and was shown, in March 2019, not to have adequately remediated the DNAPL area. The system was restarted in April 2019 and operated into early August 2019. September 2019 testing, however, showed that once again it failed in several locations in the DNAPL area. Simply turning on and operating the same system a third time is unlikely to produce any different result. We agree with EPA that, with the benefit of after the fact review of 2018 reports, it can be seen that MM failed to fix a grout problem associated with three of the temperature sensors it installed which it should have fixed at the time. Simply now replacing the defective sensors and then operating the same system a third time, however, is unlikely to achieve compliance any more than the first two times.
As part of our own effort to consider what needs to be done, we have recently come across a similar situation in New Jersey in which ERH failed to remedy sheet pile wall enclosed contamination. In that instance, the NJDEP allowed a combination of targeted excavation and in-situ chemical oxidation (ISCO) of remaining contamination to resolve the ERH remedy failure. No two sites are identical and we don't know whether that would be the appropriate remedy here, or whether some other remedy would be appropriate until can we determine where the contamination is that has resulted in remedy failure. We also note that if MM is right (and we don't think that it is) that contamination migrating upward into the DNAPL area from the lower till area is the source of what MM asserts is recontamination of the DNAPL area shortly after ERH is turned off, it would mean that replacing the temperature sensors and restarting the same ERH system which had an EPA approved target depth of 40' will clearly not solve the problem. In order to determine an appropriate course of action, we first need to conduct the proposed investigation to identify where the residual mass is located.

Accordingly, it would be "arbitrary and capricious" for EPA not to allow us to collect the data necessary to consider, in conjunction with EPA, what an appropriate remedy is. We respectfully request that the DNAPL Sampling Plan as supplemented by the Addendum of March 13, 2020 be approved so that we can get on with that critical work. Of course, if EPA has any comments on that plan as modified by the Addendum, we would be glad to review and respond to those comments.
Because a contractor failed to fix three improperly installed sensors, should not be a basis for seeking stipulated penalties. The Trustees have been proceeding with the utmost good faith and have already paid MM more than $2 million for its work. Based on a review of 2018 Reports, EPA and the Trustees have now come to the same conclusion that MM failed to fix a grout problem in 2018 as it should have at three temperature sensors. EPA and the Trustees had the same 2018 reports from MM and neither EPA nor the Trustees noticed the problem at the time and the failure of those sensors to fully operate did not itself cause the remedy failure. Moreover, there was certainly no knowing failure to seek permission to alter the design, if that is what is being referred to in your email. If there is any way, apart from the three defective sensors, in which EPA believes MM failed to construct the work as required, or there was a failure to request approval for a modification the design please let us know what it is.
We want to continue to work with EPA in a cooperative manner to resolve the DNAPL area problem and need the data that the DNAPL sampling plan will produce. EPA and the Trust could, of course, reserve all rights and defenses regarding any penalty claim while the DNAPL area sampling is proceeding.

Norman W. Bernstein and Peter Racher, Trustees

On Mon, Mar 23, 2020 at 8:48 AM Ohl, Matthew <ohl.matthew@epa.gov> wrote:

> Dear Messrs. Bernstein and Racher:
>
> After reviewing the provided information, it's clear that Non-Premium Respondents failed to:
>
> - construct the work as required under the approved work plan/design;
> - make timely notification to EPA that the grout problems and affected sensors would not be addressed; and
> - request or receive approval for material modifications to those requirements under the Consent Order.
>
> Moreover, these failures call into question the validity of the data gathered/effectiveness of the measures taken.
>
> EPA requests that Non-Premium Respondents remedy these violations of the approved work plan/design and the Order by properly installing additional sensors and conducting additional treatment of the area. These violations may also subject Non-Premium Respondents to stipulated penalties under the terms of the Order.
>
> Sincerely,
>
> Matthew J. Ohl
> Remedial Project Manager
> United States Environmental Protection Agency
> 77 West Jackson Boulevard, SR-6J
> Chicago, IL 60604-3590
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> phone: 312.886.4442
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From: Suzanne OHara <SOHara@Geosyntec.com>
Sent: Thursday, February 13, 2020 4:02 PM
To: Ohl, Matthew <ohl.matthew@epa.gov>
Cc: Krueger, Thomas <krueger.thomas@epa.gov>; Norman Bernstein <nwbernstein@nwbllc.com>; Peter M. Racher Esq. <pracher@psrb.com>; Andrew A Gremos <agremos@ramboll.com>; Gary Wealthall <GWealthall@Geosyntec.com>; Nicole.L.Toth@usace.army.mil; Mark Nichter <Mark.W.Nichter@usace.army.mil>; Becker, David J CIV USARMY CEHNC (USA) <Dave.J.Becker@usace.army.mil>; Douglas Buchanan <Douglas.M.Buchanan@usace.army.mil>
Subject: RE: Third Site - DNAPL Containment Area Sampling Work Plan

Matt,

As requested, please find attached:

- The average daily temperatures for each temperature sensor (OptiTAM) in every temperature monitoring string from initial readings to the most recent data collection (up to October 6 2019) in an Excel spreadsheet; and
- A summary of the extraction well operational data including measured PID concentrations, well head vacuum, and well head temperatures.

These data were collected and recorded by McMillan McGee (MM) and were downloaded by Geosyntec from MM's project website. Based on the data available to us, there appeared to be only daily temperatures, not more frequent intervals. Other than the PID data in the attached, we have no water or vapor monitoring data for the individual extraction wells. Please note that Geosyntec downloaded the attached data from MM's project website and has not validated the data for its accuracy.

Based on the lateral distribution of the temperature sensors and the manner in which several of these probes were constructed, the temperature data recorded by MM may not be representative of actual temperatures throughout the ERH treatment volume. Specifically, there were no temperature sensors between the outer most electrodes and the sheet pile wall. Additionally, our review of the project records indicate that grout prevented temperature sensors from being installed throughout the target treatment depth in temperature probes T-E1 (no temperature sensors below 20 ft), T-B4 (no temperature sensors below 29 ft), and T-C1 (no temperature sensors below 36 ft). Copies of the progress reports that note the grout blockage in these sensors are attached for reference. Given the lack of temperature sensors in key portions of the ERH treatment volume (both laterally and vertically), interpolation of temperatures in areas without sufficient sensor coverage cannot be relied upon to accurately reflect temperatures actually achieved in these areas.

Regards,

Suzanne

Suzanne O'Hara. MSc., P.Geo. (ON), P.G. (NY)

Senior Hydrogeologist

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From: Ohl, Matthew <ohl.matthew@epa.gov>
Sent: Thursday, February 13, 2020 7:47 AM
To: Suzanne OHara <SOHara@Geosyntec.com>
Cc: Krueger, Thomas <krueger.thomas@epa.gov>; Norman Bernstein <nwbernstein@nwbllc.com>; Peter M. Racher Esq. <pracher@psrb.com>; Andrew A Gremos <agremos@ramboll.com>; Gary Wealthall <GWealthall@Geosyntec.com>; Nicole.L.Toth@usace.army.mil; Mark Nichter <Mark.W.Nichter@usace.army.mil>; Becker, David J CIV USARMY CEHNC (USA) <Dave.J.Becker@usace.army.mil>; Douglas Buchanan <Douglas.M.Buchanan@usace.army.mil>
Subject: RE: Third Site - DNAPL Containment Area Sampling Work Plan

Suzanne:

Thank you for the work plan. Please submit all data collected before, during and after ERH treatment including, without limitation, the following:

• average daily (and more frequent) temperatures for each temperature sensor (optiTAM) in every temperature monitoring string from initial readings to the most recent data collection in an Excel spreadsheet or Access database; and

• any PID data, water or vapor sampling results or readings during all periods of operation for the individual extraction wells.

Thank you,

Matt

Matthew J. Ohl
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From: Suzanne OHara <SOHara@Geosyntec.com>
Sent: Wednesday, February 12, 2020 4:04 PM
To: Ohl, Matthew <ohl.matthew@epa.gov>
Cc: Krueger, Thomas <krueger.thomas@epa.gov>; Norman Bernstein <nwbernstein@nwbllc.com>; Peter M. Racher Esq. <pracher@psrb.com>; Andrew A Gremos <agremos@ramboll.com>; Gary Wealthall <GWealthall@Geosyntec.com>; Mark Nichter <Mark.W.Nichter@usace.army.mil>;

Nicole.L.Toth@usace.army.mil
Subject: Third Site - DNAPL Containment Area Sampling Work Plan

Matt

Please find attached the sampling plan for the DNAPL Containment Area. This work plan outlines the field activities required to identify the source of residual mass observed in compliance monitoring wells P-1 and P-2 following Electrical Resistance Heating (ERH) within the DNAPL containment area. Please let us know if you have any questions or comments on the plan so that we can schedule the field work as soon as possible.

Regards,

Suzanne

Suzanne O'Hara. MSc., P.Geo. (ON), P.G. (NY)

Senior Hydrogeologist

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